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PTO/SB/21 (09-06)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission	10

Application Number	10/040,653
Filing Date	October 19, 2001
First Named Inventor	Kim Cascone et al.
Art Unit	2626
Examiner Name	Martin Lerner
Attorney Docket Number	A1SJ1888US

ENCLOSURES *(Check all that apply)*

- [✔] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [✔] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [✔] Other Enclosure(s) (please Identify below):
  - Itemized postcard

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	KOPPEL, PATRICK & HEYBL		
Signature	Richard S. Koppel		
Printed name	RICHARD S. KOPPEL		
Date	9/28/06	Reg. No.	26,475

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PTO/SB/17 (07-06)
Approved for use through 01/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2006

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($)	0.00

Complete if Known	
Application Number	10/040,653
Filing Date	October 19, 2001
First Named Inventor	Kim Cascone et al.
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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 20 or HP =	_____	x _____	= _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 3 or HP =	_____	x _____	= _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims Fee ($)	Multiple Dependent Claims Fee Paid ($)
_____	_____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
_____ - 100 =	_____ / 50 =	_____ (round up to a whole number) x	_____	= _____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	_____
Other (e.g., late filing surcharge): _____	_____

SUBMITTED BY

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	10/040,653
Applicants	:	Kim Cascone et al.
Filed	:	October 19, 2001
TC/A.U.	:	2626
Examiner	:	Martin Lerner
Docket No.	:	A1SJ1888US
Customer No.	:	23935

Title: STATISTICAL SOUND EVENT MODELING SYSTEM AND METHODS

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REPLY BRIEF

To a great extent, the Examiner's Answer repeats the grounds for rejection given in the Final Office action, which were addressed in the Appeal Brief. However, the Examiner's Answer did raise several new arguments which will be addressed in this Reply Brief. The new arguments, or pertinent portions thereof, are quoted below, together with the page of the Examiner's Answer in which they appear.

(Page 11) Regarding claims 16 to 18, 21 to 23, and 40 and 43, Severson et al. ('431) discloses musical notes having volume, pitch, or timbre ("the parameters") may have a random aspect (column 9, lines 52 to 59); additionally, a random distribution may have arguments of a mean and standard deviation that vary over time as a function of

temperature (column 13, lines 8 to 54), or an event-responsiveness, so that aspects of sound generation are responsive to the passage of time, coincidence with some other sound event; the pitch or loudness of a sound event may change (column 8, line 62 to column 9, line 16).

The "random aspect" referred to in the cited sections of Severson et al. ('431) is a randomness between individual notes in a song. This is quite different from Appellants' approach, in which parameters (examples of which are wave selection, pitch distribution, pan distribution and amplitude distribution) are randomly varied in claims 16-18, 21-23 and 40-43 for entire simpler sound events, not just individual notes that would collectively establish a simpler sound event in the case of a musical sound effect. Examples of "simpler sound events" given in the specification are cricket chirps, car crunch and glass breaking sounds. (Page 7, lines 3-14)

Claim 16, from which claims 17, 18 and 21-23 depend, requires that "the values of said parameters are randomly varied among said simpler sound event occurrences for at least some of said kinds of simpler sound events", while claim 35, from which claims 40-43 depend, requires "controlling said simpler sound events in accordance with one or more sound event parameters, selecting the values of said sound event parameters in accordance with respective input parameters having random distributions".

This feature is described in the specification as follows: "Each time an event is generated by the trigger

process, each parameter selector chooses a random parameter value according to its distribution." (page 10, line 30 - page 11, line 1) Whether or not the individual notes within a simpler sound event vary randomly relative to each other, as disclosed in Severson et al. ('431), is irrelevant to Appellants' novel approach of random variation of parameters controlling an entire simpler sound event.

However, Appellants' claims do not set forth any limitations that can be reasonably construed to require that the random time delays are either between the same kind of sound events or different kinds of sound events. (referring to claims 1-4, 9-14, 16-18, 21-26 and 28-50)

Appellants agree with the Examiner's contention that the referenced claims do not require that the random time delays are either between the same kind of sound events or different kinds of sound events. Rather, as explained in detail in Appellants' Brief, and using claim 1 as an example, Appellants' random time delays are "after a simpler event is generated until the next simpler sound event is generated".

This is independent of whether the next simpler sound event is the same kind as the first, or different. It simply doesn't matter for purposes of Appellants' claims. The random time delays are between one simpler sound event and the next, regardless of what kinds of events they may be.

However, there is nothing in Appellants' claims requiring that the segments overlap or contain gaps. Nor is there anything in Appellants' Specification disclosing that the claims could be amended to include these limitations without introducing new matter.

The point of Appellants' argument here is that the different approach taken by Appellants compared to Severson et al. ('431) enables overlapping of, or gaps between, successive simpler sound events, but does not require any such overlapping or gaps. By contrast, as documented in the Appeal Brief, Severson et al. ('431) requires that the succession of sound segments be continuous, with one segment starting right at the end of the immediately previous segment, and does not permit either the overlapping or gaps that Appellants' approach makes possible.

There is ample evidence that Severson et. al ('431) discloses random time delays between different kinds of sound events.

Appellants agree with the Examiner that Severson et al. ('431) discloses random time delays between different kinds of sound events, but only because the selection of what kind of sound event comes next has a random aspect, not the timing of successive sound events. What Severson et al. ('431) does not disclose is "random time delays after a simpler sound event is generated until the next simpler sound event is generated" (quoting from claim 1), regardless of whether the next simpler sound event is of the same kind or different from the first one.

Thus, for two (or more) Random Sound Sequence (RSS) Machines, a "Stormy Night" sound effect, with a distant church bell, thunder, squeaking gate, barking dog, etc., contains a number of simpler sound events, i.e. the church bell, the barking dog, the thunder, having random time delays between them. Then a "Haunted" sound effect, with a moaning ghost, a crazy laugh, a howling wolf, a flapping bat, is combined to create a "Haunted House on a Stormy Night" sound effect, containing a number of simpler sound events with random and unpredictable time delays between each sound within a sound effect. (Column 7, Lines 37 to 54)

This refers to the discussion in Severson et al. ('431) of using "two completely independent RSS machines to produce an overall sound effect that has better depth and unpredictability than can be had from a single unit... In other cases, not having any unit-to-unit synchronization is exactly what is desired, as it will produce a much great level of perceived unpredictability." (column 7, lines 39-48)

But this is simply combining two sound generation units, in both of which each sound segment begins at exactly the end of the proceeding segment. Once the types of sound segments are selected, the timing of the start of each segment will be known exactly, for both each sound unit individually and both units collectively. Nor is there any suggestion of having "repetitive occurrences of at least some of said kinds", as required by claim 1, in the cited portion of Severson et al. ('431).

Nor is there anything in Appellants' claims requiring that the sound effects are not continuous so as to distinguish over Severson et al. ('431). Appellants admit on Page 7 of their Appeal Brief that Severson et al. ('431) discloses silent pauses. Further, to give but one example, Severson et al. ('431) discloses a "crack of the bat" as an over-dubbed sound added to background sound, where a "crack of the bat" only occupies a small part of a segment. (Column 7, Lines 28 to 31) A "crack of a bat" sound segment over-dubbed to background sounds is not continuous, as the sound of the bat is momentary.

There is no requirement for a claim limitation that Appellants' simpler sound effects are not continuous; the random time delays after a simpler sound event is generated until the next simple sound event is generated are sufficient to distinguish over Severson et al. ('431). The "silent pause" of Severson et al. ('431) is itself a form of sound segment, rather than the result of any random timing from one segment to the next. The Severson et al. ('431) specification does not refer to random silent pauses; it refers to specific silent pauses (column 2, line 47, emphasis added) Inserting a "specific" silent pause does not introduce any element of randomness in the timing of silent segments. Nor would adding an over-dubbed sound such as "crack of the bat" produce any randomness in the time delays from one simpler sound event to the next. There is nothing in Severson et al. ('431) to indicate anything other than such over-dubbed sounds being inserted at precisely known, not random, times. As acknowledged by

the Examiner, a "crack of the bat" is not itself a sound segment.

Severson et al. ('431) discloses music rhythm synthesis, where individual notes have a random aspect (such as volume, pitch, or timbre). (Column 9, Lines 52 to 59) Thus, the notes are "the parameters", and values of the notes, i.e. their pitch or volume, are varied randomly.

The difference between the selection of different parameters for individual notes in Severson et al. ('431) vs. the random variation of parameters for an entire simpler sound events in Appellants' claims 16-18, 21-26 and 28 was discussed above. Furthermore, the Examiner's equating of "parameters" with "notes" on page 18 of the Answer seems to contradict the equating of "parameters" with "volume, pitch or timber" on page 11.

Since the Examiners' Answer provides no sustainable grounds for rejecting the claims at issue, the Final Rejection should be overturned on this appeal.

Respectfully submitted,

Dated: 9/28/06

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